age for at least a year. The upper tail coverts, and the feathers of the back and hind neck seem to be changed first.

MUSEUM OF ZOOLOCY, UNIVERSITY OF MICHIGAN,

ANN ARBOR. MICHIGAN.

DR. ELLIOTT COUES—A SKETCH

BY MRS. H. J. TAYLOR

Elliott Coues was born in Portsmouth, New Hampshire, September 9, 1842. He died in Baltimore, Maryland, December 25, 1899, aged 57 years. He is buried in the National Cemetery at Arlington. When he was 11 years old the family moved to Washington. D .C. Aside from being stationed at various posts during his seventeen years of Army service, Washington was home throughout his life. Here he was graduated from Columbian University with the degree of A. B., in 1861. Two years later he received the degree of M. D. from the same university. Some years later this institution conferred on him the honorary degree of Ph.D.

While studying medicine Coues was a eadet in the United States Army. On receiving his degree in 1863, he was appointed Assistant Surgeon and ordered to duty in Arizona which had, in February, 1863, been made a territory. The population was 581, exclu ive of Indians and Mexicans. Arizona ranks fifth in size among the states. having an area of 113,040 square miles; this gave about one white person for every 200 square miles. No wonder the detaehment took with them eighty wagons laden with subsistence, twelve luggage wagons, a herd of 300 beef eattle and 800 head of sheep, 560 mules to draw the wagons, and 163 horses for cavalry and officers!¹

Men sent to such a new eountry needed a good physician and they had one in Dr. Coues. But a man with his energy, zeal and brain eould not express his life through a single channel and that one limited. His interest in birds began early; he was fortunate to have been under the tutelage of Profe⁻sor Baird with whom he was connected in the Smithsonian Institution before he graduated from college. With his friend, D. W. Prentis, he published a list of birds of the District of Columbia, in 1861, and it was re-published in 1883.

Arizona with its wonderful rivers and incomparable canyons, its mountains, plains, and mesas, lay before this eager student as a rich and interesting field. ". . Dr. Coues entered Arizona in 1864, and spent nearly two years studying the natural history of the Territory."²

¹Curtis, Capt. C. A. Bird-Lore, IV, 1902, page 6.

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While at Fort Randall in Dakota, in 1873, he was appointed surgeon and naturalist of the Northern Boundary Commission, which surveyed the line along the 49th parallel from Lake Of The Woods westward. "In 1876 his services were secured as secretary and naturalist of the United States Geological and Geographical survey of the territories under Dr. F. V. Havden."³ This furnished a wide field and a rare opportunity for further study of birds. Dr. Hayden, referring to "Birds of Colorado Valley," says: "Results of Dr. Coues's continued studies of North American ornithology, in connection with the Survey under my charge, are herewith presented as one of the series of Miscellaneous Publications (No. 11)."4

The main text in "Birds of Colorado Valley" is "life histories" and it was the aim of Dr. Coues ". . . that this portion of the subject should be so far divested of technicality as to meet the tastes and wants of the public rather than the scientific requirements of the schoolmen in ornithology."5 Dr. Coues edited all the publications of the Survey from 1876 to 1880, besides contributing several volumes from his own pen during this time. Among these were "Furbearing Animals" and "Monographs of the Rodentia," both published in 1877. "Birds of the Colorado Valley" was published in 1878. It extends over territory not covered in his "Birds of the Northwest." which was published in 1874. He also published several installments of "Bibliography of Ornithology." This attracted attention in Europe and placed him in the front rank as a bibliographer. "Dr. Coues was signally complimented by an invitation, signed by Huxley, Darwin. Flower, Newton, Sclater, and about forty other leading British scientists, to take up his recidence in London and identify himself with the British Museum."6 His "Bibliography of Ornithology" is an immense work. Several installments were published in 1878-1880, ". . . the greater portion still remaining in manuscript."7

The highest honor an American scientist can receive was bestowed on Elliott Coues in 1877 when he was elected a member of the National Academy of Science which had been incorporated by the 37th Congress in 1863. In 1878-1880, he became a member of nearly all the scientific societies in America and of several in Europe.

- ⁴F. V. Hayden, op. cit., page v.
 ⁵F. V. Hayden, op. cit., page vi.
 ⁶National Cyclopedia of American Biography, page 240.
- 7Elliot,, D. G. Auk, XVIII, 1901, page 4.

²F. V. Hayden in Prefatory Note. "Birds of the Colorado Valley," 1878, page x.

³National Cyclopedia of American Biography, page 240.

The practice of medicine seems never to have been an absorbing interest with him, yet he was intensely interested in the subject of anatomy, and after resigning from the army in 1881 he lectured for ten years on this subject in the medical school from which he had been graduated. The world knows him, not as a physician, but as a naturalist, ornithologist, and historian. His ever widening horizon and increasing interest, his knowledge, his accuracy, his energy, led him into the field of Natural History till it became all absorbing, when suddenly he was ordered to duty on the frontier. "He obeyed the order and proceeded to Arizona."8 Here he faced a situation that called for decision. The Missouri River basin and the whole Northwest had been opened to him as a rich field of study. He realized that he had outgrown routine medical duty. It was wearing on him and distasteful to him. He returned to Washington November 17. 1881, resigned from the army to which he had given seventeen years of service, and was frec to follow the deep interests of his life. A man with such varied interests, with strength and zeal to pursue them. with rare ability to express them, could not and should not have his tasks laid out for him. He returned to his desk in the Smithsonian Institution. "New England Bird Life" came from his pen in 1881. This was followed by "Dictionary and Check-list of North American Birds" in 1882, also a new edition of "Key to North American Birds," of which Dr. Chapman savs: "It is, beyond comparison, the best book on general and systematic ornithology ever published, and has contributed more to the advance of American ornithology than any other work since the time of Audubon."9 In 1895. Cours began to prepare the fifth edition of the "Key to North American Birds." This was fortunately ready for publication several wecks before his death.

Of "The Key," Dr. D. G. Elliot. one of the leading biographers of Coues, says: "The work by which he (Coues) will probably be best known and remembered, and which has had above all others the most influence on ornithology in our own land, is his Key to North American Birds,' a work that in its conception and the masterly manner in which it is carried out in all its details stands as one of the best if not the best bird book ever written."10 His "Key" is the work of a rare student whose unbounded energy, undaunted perseverance. unlimited ability and literary gift, bequeathed to ornithology a priceless volume.

⁸National Cyclopedia of American Biography, page 240.

⁹Chapman, F. M. *Bird-Lore*, II, 1900, page 4. ¹⁰Elliot, D. G. *Auk*. XVIII, 1901, page 4.

In 1880 Coues became interested in the doetrines of theosophy, and held important offices in the American branch of the Society. He was eventually expelled from this organization.

Coues was a prolific writer. Hc had a marvelous eommand of language, a style clear and concise. Time and labor mattered not to him when investigating a subject. His ability and his vast store of knowledge had no market value for him. He loved scientific work and to it he gave all his talents. His papers, reviews, and criticisms on scientific subjects numbered about one thousand. He was the author or joint author of thirty-seven volumes—all in fifty-seven short years. He edited the departments of Zoology, Biology, and Comparative Anatomy for the Century Dictionary. To this he devoted seven years of work and contributed some 40,000 entries.

As editor of the *Osprey* from the middle of 1898 till shortly before his death in 1899, we have a different and very interesting view of this many-sided man. When he made a copy his statements were unquestioned; his mechanical structure was correct; his style unparalleled. Now he is on the other side of the desk. He is a marvelous critic, gives favorable comment where it is deserved, and when not deserved he sends shafts direct and piercing as an arrow. all elothed in delightful humor.

A few examples of his editorial style may be appreciated more now than at the time.

First we may take the following quotations from his review of D. G. Elliot's "The Wild Fowl of the United States and British Possessions." He says: ". . . Mr. Elliot shows that he has opinions of his own and is not afraid to express them; that is to say, he follows the A. O. U. Code and Cheek-list when he thinks proper, and differs from it when he thinks he ean improve upon it. . . . Mr. Elliot differs from the Cheek-list in perhaps twenty cases . . . and we trust that the eommittee which holds all this matter in the hollow of its collective hand will reckon with Mr. Elliot, most of who e departures from the Union's nomenelature scent to us distinct improvements upon it. We also note to our joy the outward signs of that inward grace which makes Mr. Elliot try to spell right, instead of preferring to spell wrong, as is done in so many cases by the distinguished impurists, or advocates of illiteracy, who at present, we believe, have a majority of four to one on the nomenclatural committee."¹¹

¹¹Osprey, III, 1898, page 48.

In an editorial, Coues writes: "How to become a truly great ornithological author is a question which seems to agitate the mind of many a person. . . The treatment we recommend to the patient is simple and natural; it is warranted to kill or cure the worst case. Here is our prescription:

"1. Learn to spell correctly.

"2. Learn to punctuate properly.

"3. Learn to construct sentences grammatically.

"When the patient has taken this medicine for a few years, he will either be dead or in a fair way to recovery. In the latter event, the rest is easy, as follows:

"4. Find out something that nobody else knows about birds.

"5. Write it legibly.

"6. And send it to The Osprey.

"If the Archangel Gabriel were to send us the glad tidings of salvation on both sides of the paper we should decline his article with thanks, and tell him that is no way to blow his horn. . . . One trouble with Audubonians seems to be that there are too many inspired idiots among them, who fancy they have a God-given mission not to hide their light under a bushel. The shotgun people are mostly made of sterner stuff; they are realistic and can be cultivated, educated, and really helped in various ways. But the opera glass fiends! They always live too near the great heart of nature to know anything of her head or hands, or do a stroke of sensible work, even to protect the birds. . . One woman wrote to say she was so unhappy because the cats in her neighborhood killed birds. We were going to write back and suggest that she collect the murderous felines and read the Audubon circular to them; but we restrained ourselves and advised her to feed the cats."¹²

In another editorial he takes up the much agitated question of bird protection and destruction. He says: "We [*The Osprey*] are asked to . . . state whether we stand for the Protection of birds with a big P, or the Destruction of birds with a big D. . . . We can put the whole thing in a nutshell, which we leave to be cracked by our readers according to their inclination or ability:

"1. Birds must and shall be destroyed by the acts of God, such as stress of weather, snakes, monkeys, cats, foxes, skunks, weasels, hawks, owls, jays, and numerous other destructive natural agencies ordained by Divine Providence.

^{12/}bid., III, 1899, page 106.

"2. Birds must and shall be destroyed and deprived of their nests and eggs to any extent which may be necessary and proper for ornithological and oological purposes.

"3. Birds must and shall be destroyed for legitimate sport. . . .

"4. Birds must and shall be destroyed for economic and commercial purposes, the flesh and eggs of some birds being among the most important food products of the United States.

"On the other hand-

"5. Birds must and shall be protected from wanton, eruel. needless, unreasonable or illegal destruction of themselves or their eggs.

"Regarding the first of these propositions, *The Osprey* does not coneern it elf particularly with the aets of God. They are beyond the scope of this magazine . . . nor does *The Osprey* ever fly in the face of Providence. We give God eredit for knowing what He was about when He made things, and for ability to mind His own business without our assistance. . . .

"Proposition 2. . . . *The Osprey* advoeates the killing of birds and the taking of their eggs to any extent which may be found necessary for ornithological . . . purposes. . . .

"Our last proposition, No. 5 . . . we shrink from inflicting pain. even as we do from enduring it; we love birds with a love that sprang up in the heart of our ehildhood, and is fostered in our mature years as a precious posses ion . . . we applaud every ornithologist who kills or otherwise acquires what specimens of the birds and their eggs he needs for scientific purposes. . . ."¹³

No sketch of Dr. Elliott Coues would be complete without mention of his very valuable work in editing the journals of early explorers of the great west. It is due to him, more than to any other, that the original sources of the early explorers west of the Mississippi River are preserved. The ever-moving life of the Army acquainted him with the west in an intimate and real way. He edited the manuscript journals of Alexander Henry and David Thompson, written by them 1799 to 1814, and giving the history of the great northwest. Likewise the journals of Jaeob Fowler giving his adventure from Arkansas through Indian territory from 1821-1822. Also of Charles Lapenteur, a fur trader on the Upper Missouri from 1833-1872. This was published in 1898. The account of Zebulon M. Pike's explorations through the Louisiana Territory to the head waters of the Mississippi from 1805 to 1807 was publiched by Coues in 1895 with full notes

¹³*Ibid.*, 111, 1899, page 123-4.

and a memorial to Pike. "On the Trail of a Spanish Pioneer," describing the wanderings of Francisco Garces in the Southwest was published after the death of Coues. Coues made many long and wearisome journeys to know at first hand the wanderings of these explorers, and to locate the places mentioned in their journals.

Of all his work in editing journals of western explorers, Coues' new edition of Lewis and Clark Expedition stands first. Because of his interest and invaluable work on the Lewis and Clark journals, Dr. Coues was invited to be present at the reburial of the bones of Sergeant Charles Floyd, the only man to die on this perilous undertaking. The ceremony took place at Sioux City, Iowa, August 20, 1895. It was here that I first met Dr. Coues. During his brief stay of three days he called at our home. I remember him as a tall, well proportioned, scholarly looking man, straight as an arrow, and with dark hair, a full beard, and deep gray eyes. He was dignified but kindly. I felt at ease in his presence, but I didn't understand how he could refrain from comment on our beautiful three-months old babe; it seemed worth a trip half way across the continent to see him. He talked of the Lewis and Clark expedition like one who had been a part of it—not of the hardships and dangers, but of the aim of the expedition and its success.

On the afternoon of August 20, 1895, Dr. Coues spoke very briefly at the grave of Sergeant Floyd, located on a high and sightly bluff about two miles from the city, closing with the lines that Captain William Clark had written in his diary August 20, 1804, and probably on that very spot:

"Died with a great deal of composure, before he died he said to me 'I am going away I want you to write me a letter—We buried him on the top of the bluff $\frac{1}{2}$ mile below a small river to which we gave his name, he was buried with the Honors of War much lamented, a seeder post with the Name Sergt. C. Floyd died here 20th of August 1804 was fixed at the head of his grave—This man at all times gave us proofs of his firmness and Determined resolution to doe service to his country and honor to himself after paying all the honor to our Decesed brother we camped in the mouth of floyd's river about 30 yards wide, a butifull evening."¹⁴

The Floyd Memorial Association arranged its evening program to be held at an auditorium in the city. At this meeting Dr. Coues and Prof. J. D. Butler, of the University of Wisconsin. were the speakers. Dr. Coues spoke on the Lewis and Clark expedition. He called it our national epic of exploration. His personality, his voice.

¹⁴In Memoriam Sergeant Charles Floyd. Report of the Floyd Memorial Association. Prepared on behalf of the Committee on Publication by Effiot Coues. Sionx City, 1897, page 42.

his language, his knowledge, recited the epic and made it memorable to all who heard him. He closed with these words: "Thus was brought to a happy conclusion the most memorable expedition in the history of our country-one accomplished at the utterly insignificant expense of about \$2500, which Congress had appropriated for the purpose, and with the loss of but a single life-that of him whom we honor today."¹⁵

On May 30, 1901, Mrs. Coues again came to Sioux City. We regretted that Dr. Coues could not have lived to be at the ceremony and help to dedicate the monument erected to Sergeant Floyd. The shaft commemorates not only the life of the brave soldier, but stands also as a monument to the opening of the great west by the Lewis and Clark expedition.

While in Sioux City on May 30, 1901, Mrs. Coues gave an interview to the Sioux City Journal which I quote in part:

". . . Dr. Coues had already been making some investigations regarding the enterprise [Lewis and Clark Expedition] and was glad to undertake the work of getting out the new book. . . . Papers and documents were stored away in the vaults of the [Philosophical] Society [of Philadelphia] which had not been looked at for nearly one hundred years. . . . After a tedious search he found the official data of the Lewis and Clark expedition as written by the men themselves. . . . There was not a work that Dr. Coues engaged in, in which he became so interested as in this history of Lewis and Clark. The following year, after he published the book (1893) he and I made a trip over the route taken by Lewis and Clark in their famous expedition of 1804."16

During his stay of three days in Sioux City in 1895, Dr. Coues was the guest of our family physician and friend, Dr. Grant J. Ross, who was in the army service for three and one-half years with Coues. On October 31, 1928, I visited Dr. Ross in his home in Sioux City. He is now 87 years old. He stands as straight as a soldier and is well preserved in all his faculties. I asked him to give me his recollections of Coues. Dr. Ross said: "Dr. Coues was, as I knew him in the army, a quick, energetic, active man; forceful and competent; a good soldier, not a very prudent man; a little rash, withal very methodical. Hc spoke well, was a scholarly man, a fluent and interesting talker. He was a man of ordinary size, weighing 162-4 pounds. Dark hair

¹⁵In Memoriam Sergeant Charles Floyd. Report of the Floyd Memorial Association. Sioux City, 1897, page 49. ¹⁶Sioux City Journal, May 30, 1901.

and beard, gray eyes. He was very approachable. He enjoyed nothing better than a conversation with a lone Indian. He picked up Indian dialect readily and used it quite well. The three days he spent in Sioux City he was a delightful guest in my home, and was like a friend. As a thinker and investigator he had a very active mind. He seemed not particularly interested in medicine."^{17*}

After the Sioux City & Pacific Railroad came to Sioux City the bluff on which Scrgeant Charles Floyd was buried was eroded, the soil being Missouri River loess. The coffin protruded and some of the early settlers moved it back about six hundred feet, leaving a complete record of the reburial which was in 1857. Sioux City grew and was extending to the bluff where Floyd is buried, and it was decided to take up the bones and preserve them in more permanent burial. Among letters from interested men was one from Dr. Coues who questioned the reburial of Floyd's skull, which he thought would be better preserved in some historical depository, but the Floyd Memorial Association decided to bury it and did so on August 20, 1895. In my interview with Dr. Grant J. Ross on October 31, 1928, I asked him about the casts of Floyd's skull which I remembered he had made at that time. The first one was placed in the museum of the Sioux City Public Library. Dr. Ross said: "I made two additional ones. One I gave to Dr. Coues, the other I sent to the State Historical Society of Iowa."

Prof. J. D. Butler, of the University of Wisconsin, attended both the reburial in 1895 and the dedication of the monument in 1901. On both occasions he brought with him the original diary of Sergeant Floyd, which was discovered in the Historical Library at Madison, Wisconsin, by Reuben Gold Thwaites on February 3, 1893. Professor Butler was a guest in our home. He told us that the American Antiquarian Society of Worcester. Massachusetts, of which he was a member, asked him to speak on Floyd's Journal. On hearing the address the society voted to print Floyd's Journal verbatim et literatim et punctuatim. Dr. Coucs first saw this Journal when Prof. Butler showed it at Floyd's grave August 20, 1895. Coues was the latest historian of the Lewis and Clark expedition, which he published November, 1893. He regretted that he had no mention of the Floyd Journal in his new edition, and he seemed somewhat annoyed by it. It was unfortunate that it did not come to his notice before he published this edition.

¹⁷Personal interview with Dr. Grant J. Ross by this author, October 31, 1928. *Dr. Grant J. Ross died in Sioux City on April 18, 1929.

Dr. Coues was a student and thorough investigator in diversified fields. The fruits of his labors were prolific. He was a literary man, brilliant in composition, and radiating an atmosphere of culture. The world will know him best and longest as an ornithologist, but I believe that dearest to his heart was his work as historian of the Lewis and Clark Journals recording the greatest expedition of our country.

Nowhere did I find reference to the personal or home life of Elliott Coues save that "Prof. Coues was twice married; once early in life, and again in 1887 to Mrs. M. E. Bates who was well fitted to aid him in his scientific work."¹⁸

Of deep warm friendships little is revealed and perhaps they were not possible to one who had such a wealth of historical and scientific knowledge to give to the world. No soul can wholly reveal it elf in this life, and often what lies deepest in the human heart fails of expression and hides a warmth of personality that would draw men together as individuals. We know that back of varied and tremendous expression through his writings stands the man Dr. Elliott Coues greater than all his works.

SIOUX CITY, IOWA.

THE FLORIDA CORMORANT AS OBSERVED IN PINELLAS COUNTY, FLORIDA

BY WILLIAM G. FARGO

The following notes relative to that form of the Double-crested Cormorant (*Phalacrocorax auritus floridanus*) which inhabits the southeastern portions of the United States are from observations made during annual visits from January to May in the years 1923 to 1929. While these particular notes pertain to the mid-section of the west coast of the Florida peninsula, I have noticed no variation in the general habits of this cormorant elsewhere on the Florida coasts.

Cormorants are occasionally seen on the fresh water lakes of Florida. but I have collected none there and am not aware whether they represent the southern or the northern form. In general the Florida Cormorant is a coastal species, a bird of the salt water. They swarm throughout Tampa Bay and its tidal estuaries.

In the years 1924, 1925, and 1926 these cormorants roosted in large numbers nightly during the winter and early spring months on

¹⁸National Cyclopedia of American Biography, page 241.